

AMENDMENTS TO THE CLAIMS

1-20. (Canceled)

21. (Currently Amended) A system for accelerated TCP and iSCSI protocol processing in hardware, the system comprising:

a storage network processor (SNP) configured to offload at least some packet processing tasks from a general purpose processor associated with a host device, the storage network processor further comprising:

a hardware-accelerated receive module configured to receive TCP network packets;

a hardware-accelerated TCP and iSCSI protocol processing ~~module chip~~ configured to process both TCP network packets and iSCSI instructions embedded in TCP network packets, wherein processing of iSCSI instructions embedded in TCP network packets includes offloading common case iSCSI instructions embedded in TCP network packets to process and resolve the embedded iSCSI instructions in hardware; and

a hardware-accelerated transmit module configured to transmit TCP network packets.

22. (Original) The system of Claim 21 wherein, offloading of the packet processing tasks occurs at several layers associated with a TCP protocol stack including an IP layer and a TCP layer.

23. (Original) The system of Claim 21 wherein, offloading of the packet processing tasks occurs at an iSCSI layer associated with an iSCSI protocol stack.

24. (Original) The system of Claim 21 wherein, the packet processing tasks comprise packet parsing operations.

25. (Original) The system of Claim 24 wherein, the packet parsing operations are directed towards resolving and processing the embedded iSCSI instructions.

26. (Original) The system of Claim 21 wherein, the storage network processor accelerates packet parsing operation to accommodate near line-rate receiving and transmission of TCP network packets.

27. (Original) The system of Claim 26 wherein, the line rate is approximately 10 Gigabit/sec.
28. (Original) The system of Claim 21 wherein, the storage network processor is configured to offload protocol processing associated with acknowledgement generation.
29. (Original) The system of Claim 21 wherein, the storage network processor is configured to offload protocol processing associated with window management.
30. (Original) The system of Claim 21 wherein, the storage network processor is configured to offload protocol processing associated with timer maintenance.
31. (Original) The system of Claim 21 wherein, the storage network processor is configured to accelerate protocol processing associated with acknowledgement generation.
32. (Original) The system of Claim 21 wherein, the storage network processor is configured to accelerate protocol processing associated with window management.
33. (Original) The system of Claim 21 wherein, the storage network processor is configured to accelerate protocol processing associated with timer maintenance.
34. (Original) The system of Claim 21 wherein, the storage network processor is configured to accelerate protocol processing associated with window management.
35. (Original) The system of Claim 21 wherein, the storage network processor is configured to accelerate protocol processing associated with retransmission.
36. (Original) The system of Claim 21 further comprising, a remote memory channel used to transfer data and meta-data to a partner storage controller to provide at least a degree of fault tolerance.
37. (Original) The system of Claim 36 wherein storage data may be re-created on the partner storage controller.